

Work Order ID 148023

\*148023\*

June 20, 2016 10:20:42 AM

Page 1

Ship July 4.

Item ID: D212-803-215 Accept \*N900040100\* Setup Start \*NS1\*

Revision ID: Stop \*NS2\*

Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412

Start Date: 6/20/2016 Start Qty: 1.00 \*1\* Cust Item ID:

Required Date: 7/4/2016 Req'd Qty: 1.00 \*1\* Customer:

Reference:

Approvals: Process Plan: SA Date: 6/20/16 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description                                        | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-----------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| <b>Draw Nbr</b>                | <b>Revision Nbr</b>                                             |                      |         |        |              |               |               |                  |                |
| DSI9728                        | A                                                               |                      |         |        |              |               |               |                  |                |
| IIN-D212-803                   | D                                                               |                      |         |        |              |               |               |                  |                |
| 100                            | Document Control                                                | 0.00                 |         |        |              |               |               |                  |                |
| *100*                          | DOCUMENT CONTROL                                                |                      |         |        |              |               |               |                  |                |
| DC                             | Memo                                                            | 0.00                 |         |        |              |               |               |                  |                |
| Doc.Control -USB or Paperwork  | Photocopy blue file and type labels per PPP D212-803-215 CHG001 |                      |         |        |              |               |               |                  |                |
| 110                            | Pick Kit                                                        | 0.00                 |         |        |              |               |               |                  |                |
| *110*                          |                                                                 |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo                                                            | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      |                                                                 |                      |         |        |              |               |               |                  |                |

JUN 23 2016

DAS  
6  
9-89

DAS  
27  
9-89

JUN 29 2016

DAS  
6  
9-89

DAS  
28  
9-89

JUN 27 2016

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |                       |                                              |  |
|--------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--|-----------------------|----------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |                                                | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                                            | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |                                               |  |                       |                                              |  |
| Date :                                                       |                                                | Step #:                                                                                                                                                                            |                                                            | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  | MRB (QSI042) Approval |                                              |  |
| Description Work Order Deviation                             |                                                |                                                                                                                                                                                    |                                                            | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                               |  |                       | Completed By                                 |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |                       | Lead hand / Supervisor Approval Verification |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |                       |                                              |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |                       |                                              |  |
| Root Cause                                                   |                                                | FAULT CATEGORY                                                                                                                                                                     |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |                       |                                              |  |
| Environment <input type="checkbox"/>                         | No Re-verification <input type="checkbox"/>    | Pressure/Forced <input type="checkbox"/>                                                                                                                                           | Temperature/Cure <input type="checkbox"/>                  | Power Loss/Surge <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Positioned Wrong <input type="checkbox"/>     |  |                       |                                              |  |
| Design <input type="checkbox"/>                              | Operator <input type="checkbox"/>              | Bending <input type="checkbox"/>                                                                                                                                                   | Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Outside Dimensions <input type="checkbox"/>   |  |                       |                                              |  |
| Doc/Data <input type="checkbox"/>                            | Offset/Setup <input type="checkbox"/>          | Centre Not Concentric <input type="checkbox"/>                                                                                                                                     | BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Over/Under tolerance <input type="checkbox"/> |  |                       |                                              |  |
| Equip/Tooling <input type="checkbox"/>                       | Supplier <input type="checkbox"/>              | Cracks <input type="checkbox"/>                                                                                                                                                    | Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Part Incorrect <input type="checkbox"/>       |  |                       |                                              |  |
| Handling/Pre <input type="checkbox"/>                        | Training <input type="checkbox"/>              | Crimp/Kink/Ripple/Wave <input type="checkbox"/>                                                                                                                                    | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Part Lost/Missing <input type="checkbox"/>    |  |                       |                                              |  |
| Material <input type="checkbox"/>                            | Use for Testing <input type="checkbox"/>       | Cuffs <input type="checkbox"/>                                                                                                                                                     | Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Part Moved <input type="checkbox"/>           |  |                       |                                              |  |
| Internal Transport <input type="checkbox"/>                  | Poor Information <input type="checkbox"/>      | Crushing <input type="checkbox"/>                                                                                                                                                  | Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Drawing <input type="checkbox"/>              |  |                       |                                              |  |
| Tribal Knowledge <input type="checkbox"/>                    | Rushing <input type="checkbox"/>               | Heat Treat <input type="checkbox"/>                                                                                                                                                | Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Finish <input type="checkbox"/>               |  |                       |                                              |  |
| LOA <input type="checkbox"/>                                 | Product Improvement <input type="checkbox"/>   | Wave/Twist in Tube <input type="checkbox"/>                                                                                                                                        | Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Misread <input type="checkbox"/>              |  |                       |                                              |  |
| Substation <input type="checkbox"/>                          | Process Improvement <input type="checkbox"/>   | Marks/Chatter <input type="checkbox"/>                                                                                                                                             | Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Turning Sequence <input type="checkbox"/>     |  |                       |                                              |  |
| Past Expiry Date <input type="checkbox"/>                    | Manufacturing Process <input type="checkbox"/> | OTHER : _____                                                                                                                                                                      |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |                       |                                              |  |
| Misidentified <input type="checkbox"/>                       | Past Due <input type="checkbox"/>              |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |                       |                                              |  |

# Work Order ID 148023

**\*148023\***

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June 20, 2016 10:20:42 AM

Item ID: D212-803-215 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412  
 Start Date: 6/20/2016 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 7/4/2016 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID                | Operation<br>Description                                                                                             | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty     | Reject<br>Qty | Reject<br>Number       | Insp.<br>Stamp |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------|---------|--------|--------------|-------------------|---------------|------------------------|----------------|
| 120<br><b>*120*</b><br>QC<br>Quality Control  | QC4- 100% Inspect kits for completeness<br><br>Memo                                                                  | 0.00<br><br>0.00     |         |        |              | DAS<br>27<br>9-89 |               | JUN 29 2016            |                |
| 130<br><b>*130*</b><br>Packaging<br>Packaging | Packaging<br><br>Memo<br>Identify and pack for shipping as per PPP D212-803-215<br>Location: _____<br>PPP Rev: _____ | 0.00<br><br>0.00     |         |        |              | DAS<br>28<br>9-89 |               | JUN 29 2016            |                |
| 140<br><b>*140*</b><br>QC<br>Quality Control  | QC21- Final Inspection - Work Order Release<br><br>Memo                                                              | 0.00<br><br>0.00     |         |        |              |                   |               | 16/6/28<br>2m 16/06/28 |                |

*Sold*

JUN 28 2016

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                   |                                                 |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                   |                                                 |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Step #:                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |               | <b>MRB (QS1042) Approval</b><br><br><div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div> |                                                 |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                   |                                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                   | Completed By                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                   | Lead hand / Supervisor<br>Approval Verification |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                   | QC / QA Coordinator<br>Approval                 |  |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                   |                                                 |  |
| Environment <input type="checkbox"/><br>Design <input type="checkbox"/><br>Doc/Data <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Pre <input type="checkbox"/><br>Material <input type="checkbox"/><br>Internal Transport <input type="checkbox"/><br>Tribal Knowledge <input type="checkbox"/><br>LOA <input type="checkbox"/><br>Substation <input type="checkbox"/><br>Past Expiry Date <input type="checkbox"/><br>Misidentified <input type="checkbox"/> | No Re-verification <input type="checkbox"/><br>Operator <input type="checkbox"/><br>Offset/Setup <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Training <input type="checkbox"/><br>Use for Testing <input type="checkbox"/><br>Poor Information <input type="checkbox"/><br>Rushing <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Past Due <input type="checkbox"/> | Pressure/Forced <input type="checkbox"/><br>Bending <input type="checkbox"/><br>Centre Not Concentric <input type="checkbox"/><br>Cracks <input type="checkbox"/><br>Crimp/Kink/Ripple/Wave <input type="checkbox"/><br>Cuffs <input type="checkbox"/><br>Crushing <input type="checkbox"/><br>Heat Treat <input type="checkbox"/><br>Wave/Twist in Tube <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/> | Temperature/Cure <input type="checkbox"/><br>Set-up <input type="checkbox"/><br>BOM/Route <input type="checkbox"/><br>Broken/Damage/Defect <input type="checkbox"/><br>Inspection Incomplete/Unqualified <input type="checkbox"/><br>Contamination <input type="checkbox"/><br>Countersink <input type="checkbox"/><br>Cut Too Short <input type="checkbox"/><br>Instructions Incomplete/Unclear <input type="checkbox"/><br>Drill Holes <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/><br>Folio/Program <input type="checkbox"/><br>Grain <input type="checkbox"/><br>Weld <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/><br>Off-set <input type="checkbox"/><br>Misabeled <input type="checkbox"/><br>Fit/Function <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Positioned Wrong <input type="checkbox"/><br>Outside Dimensions <input type="checkbox"/><br>Over/Under tolerance <input type="checkbox"/><br>Part Incorrect <input type="checkbox"/><br>Part Lost/Missing <input type="checkbox"/><br>Part Moved <input type="checkbox"/><br>Drawing <input type="checkbox"/><br>Finish <input type="checkbox"/><br>Misread <input type="checkbox"/><br>Turning Sequence <input type="checkbox"/> | OTHER : _____ |                                                                                                                   |                                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                   |                                                 |  |

June 20, 2016 10:20:48 AM

**\*148023\***

**\*D212-803-215\***

**Start Date:** 6/20/2016**Required Date:** 7/4/2016

**Start Qty: 1.00**

**Required Qty: 1.00**

**Comments:** IPP REV:A 15.07.03 NEW ISSUE DD VERF:JLM

| Component Item ID/<br>Item Name                               | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand  | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|-----------------|-------------|--------------|---------------|----------------|--------|
| D5155-043                                                     |                        | Manufactured  | No          |                     |                  |                 | Each               | 2.0000          |             | 1            |               |                |        |
| <b>*D5155-043*</b><br>Co-Pilot Collective Head Assembly (212) |                        |               |             |                     |                  |                 |                    |                 |             |              |               |                |        |
|                                                               | DAS<br>27<br>9-89      |               |             | <u>Location</u>     |                  |                 | <u>Loc Qty</u>     | <u>Loc Code</u> |             |              |               |                |        |
|                                                               |                        |               |             | ST373               |                  |                 | 2                  |                 |             |              |               |                |        |
|                                                               |                        |               |             |                     | 144951           |                 | 2                  |                 |             |              |               |                |        |
| D5156-5                                                       |                        | Manufactured  | No          |                     |                  |                 | Each               | 9.0000          |             | 1            |               |                |        |
| <b>*D5156-5*</b><br>Face Plate                                |                        |               |             |                     |                  |                 |                    |                 |             |              |               |                |        |
|                                                               | DAS<br>27<br>9-89      |               |             | <u>Location</u>     |                  |                 | <u>Loc Qty</u>     | <u>Loc Code</u> |             |              |               |                |        |
|                                                               |                        |               |             | ST155               |                  |                 | 9                  |                 |             |              |               |                |        |
|                                                               |                        |               |             |                     | 145840           |                 | 9                  |                 |             |              |               |                |        |
| D5156-7                                                       |                        | Manufactured  | No          |                     |                  |                 | Each               | 4.0000          |             | 1            |               |                |        |
| <b>*D5156-7*</b><br>Face Plate                                |                        |               |             |                     |                  |                 |                    |                 |             |              |               |                |        |
|                                                               | DAS<br>27<br>9-89      |               |             | <u>Location</u>     |                  |                 | <u>Loc Qty</u>     | <u>Loc Code</u> |             |              |               |                |        |
|                                                               |                        |               |             | ST155               |                  |                 | 4                  |                 |             |              |               |                |        |
|                                                               |                        |               |             |                     | 134708           |                 | 4                  |                 |             |              |               |                |        |
| MS171599                                                      |                        | Purchased     | No          |                     |                  |                 | Each               | 19.0000         |             | 1            |               |                |        |
| <b>*MS171599*</b><br>Pin                                      |                        |               |             |                     |                  |                 |                    |                 |             |              |               |                |        |
|                                                               | DAS<br>27<br>9-89      |               |             | <u>Location</u>     |                  |                 | <u>Loc Qty</u>     | <u>Loc Code</u> |             |              |               |                |        |
|                                                               |                        |               |             | Return2015          |                  |                 | 1                  |                 |             |              |               |                |        |
|                                                               |                        |               |             |                     | m123183          |                 | 1                  |                 |             |              |               |                |        |
|                                                               |                        |               |             | ST315               |                  |                 | 18                 |                 |             |              |               |                |        |
|                                                               |                        |               |             |                     | m134573          |                 | 18                 |                 |             |              |               |                |        |

JUN 27 2016

JUN 27 2016

# Picklist Print

June 20, 2016 10:20:48 AM

Page 2

Work Order ID: 148023

**\*148023\***

Parent Item: D212-803-215

**\*D212-803-215\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412

Start Date: 6/20/2016

Required Date: 7/4/2016

Start Qty: 1.00

Required Qty: 1.00

D5055-3

Manufactured No

Each 6.0000

1

**\*D5055-3\***

Placard

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST146

6

145260

6

Each

2.0000

1

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DAS DAS  
6 28  
9-89 9-89

D5055-5

Manufactured No

**\*D5055-5\***

Placard

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST146

2

142004

2

Each

2.0000

1

\*\*

DAS DAS  
6 28  
9-89 9-89

D5055-7

Manufactured No

**\*D5055-7\***

Placard

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST146

2

142005

2

Each

2.0000

1

\*\*

DAS  
6 28  
9-89 9-89

D5055-9

Manufactured No

**\*D5055-9\***

Placard

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST146

2

142006

2

DAS DAS  
6 28  
9-89 9-89

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Work Order ID: 148023

**\*148023\***

Parent Item: D212-803-215

**\*D212-803-215\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412

Start Date: 6/20/2016

Required Date: 7/4/2016

Start Qty: 1.00

Required Qty: 1.00

D4411-7

Manufactured No

Each

6.0000

1

**\*D4411-7\***

Placard

\*\*

DAS  
28  
6 9-89  
9-89

DAS  
27  
9-89

Location

Loc Qty

Loc Code

Return2016

1

132770

1

ST096

5

144495

5

Each

5.0000

1

\*\*

DAS  
28  
6 9-89  
9-89

27ET51-T

Purchased

No

**\*27ET51-T\***

Switch

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST580

5

m134512

2

m134599

3

Each

6.0000

3

\*\*

DAS  
28  
6 9-89  
9-89

30-037-26

Purchased

No

**\*30-037-26\***

Diode Assembly

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST580

6

m134529

6

Each

2.0000

2

\*\*

DAS  
28  
6 9-89  
9-89

30-037-3

Purchased

No

**\*30-037-3\***

Diode Assembly

135096x1

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST580

2

m133270

2

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Work Order ID: 148023

**\*148023\***

Parent Item: D212-803-215

**\*D212-803-215\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412

Start Date: 6/20/2016

Required Date: 7/4/2016

Start Qty: 1.00

Required Qty: 1.00

AN961-6T NAS1149F0463P Purchased No

Each 129.0000 3

**\*AN961-6T\***

Washer

DAS  
28  
9-89

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST321

129

123314

129

Each

1.0000

3  
1

DAS  
6  
9-89

DAS  
28  
6-9-89  
9-89

51MXY-5-J Purchased No

**\*51MXY-5-J\***

Switch

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST583

1

m134529

1

Each

124.0000

1  
21

DAS  
6  
9-89  
DAS  
28  
9-89

M39029/31-240 Purchased No

**\*M39029/31-240\***

Pin

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST565

124

m134386

124

Each

127.0000

21  
21

DAS  
6  
9-89  
DAS  
28  
9-89

M39029/32-259 Purchased No

**\*M39029/32-259\***

Socket

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST565

127

m134386

127

Each

20.0000

21  
2

DAS  
6  
9-89  
DAS  
28  
9-89

M39029/31-228 Purchased No

**\*M39029/31-228\***

Pin

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST556

20

M127949

20

2

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Work Order ID: 148023

**\*148023\***

Parent Item: D212-803-215

**\*D212-803-215\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412

Start Date: 6/20/2016

Required Date: 7/4/2016

Start Qty: 1.00

Required Qty: 1.00

M39029/32-247

Purchased

No

Each

26.0000

2

**\*M39029/32-247\***

Socket

**\*\***

DAS  
28  
6  
9-89

Location

Loc Qty

Loc Code

ST565

26

M134381

6

M134575

20

MS21042L06

Purchased

No

Each

86.0000

3

**\*MS21042I 06\***

Nut

**\*\***

Location

Loc Qty

Loc Code

ST303

86

m134537

36

m134962

50

MS21042L3

Purchased

No

Each

1,567.000

1

**\*MS21042I 3\***

Nut

**\*\***

Location

Loc Qty

Loc Code

FP001

32

m133790

32

GA

232

m133790

3

m134360

229

ST303

1303

m134039

12

m134634

2

m134754

489

m134943

800

JUN 27 2016

DAS  
28  
6  
9-89

DAS  
27  
9-89

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Work Order ID: 148023

**\*148023\***

Parent Item: D212-803-215

**\*D212-803-215\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412

Start Date: 6/20/2016

Required Date: 7/4/2016

Start Qty: 1.00

Required Qty: 1.00

MS21044N04

Purchased

No

Each

25.0000

2

**\*MS21044N04\***

Nut

\*\*

DAS  
28  
9-89

DAS  
27  
9-89

Location

Loc Qty

Loc Code

Return2015

2

m125445

2

ST302

23

m132677

23

2

MS21919WDG10

Purchased

No

Each

16.0000

1

**\*MS21919WDG10\***

Clamp

\*\*

DAS  
28  
9-89

DAS  
27  
9-89

Location

Loc Qty

Loc Code

Return2016

1

m128993

1

ST293

15

m128993

15

MS21919WDG19

Purchased

No

Each

4.0000

1

**\*MS21919WDG19\***

Clamp

\*\*

DAS  
28  
9-89

DAS  
27  
9-89

Location

Loc Qty

Loc Code

ST291

4

m126741

1

m133988

3

MS24523-27

Purchased

No

Each

0.0000

1

**\*MS24523-27\***

Switch

\*\*

135084

DAS  
28  
9-89

DAS  
27  
9-89

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Work Order ID: 148023

**\*148023\***

Parent Item: D212-803-215

**\*D212-803-215\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412

Start Date: 6/20/2016

Required Date: 7/4/2016

Start Qty: 1.00

Required Qty: 1.00

|                     |           |    |      |         |   |    |  |  |
|---------------------|-----------|----|------|---------|---|----|--|--|
| MS24693-S7          | Purchased | No | Each | 74.0000 | 2 |    |  |  |
| <b>*MS24693-S7*</b> |           |    |      |         |   | ** |  |  |
| Screw               |           |    |      |         |   |    |  |  |

|                      |           |    | <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |    |  |  |
|----------------------|-----------|----|-----------------|----------------|-----------------|----|--|--|
| DAS<br>27<br>9-89    |           |    | ST287           | 74             |                 |    |  |  |
|                      |           |    | m129278         | 74             |                 | 2  |  |  |
| MS24693-24B          | Purchased | No |                 | Each           | 195.0000        | 4  |  |  |
| <b>*MS24693-24B*</b> |           |    |                 |                |                 | ** |  |  |
| Screw                |           |    |                 |                |                 |    |  |  |

|                       |           |    | <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |    |  |  |
|-----------------------|-----------|----|-----------------|----------------|-----------------|----|--|--|
| DAS<br>27<br>9-89     |           |    | GA              | 154            |                 |    |  |  |
|                       |           |    | m133790         | 4              |                 |    |  |  |
|                       |           |    | m134676         | 150            |                 |    |  |  |
|                       |           |    | ST288           | 41             |                 |    |  |  |
|                       |           |    | m132256         | 41             |                 | 4  |  |  |
| MS27039-1-07          | Purchased | No |                 | Each           | 347.0000        | 1  |  |  |
| <b>*MS27039-1-07*</b> |           |    |                 |                |                 | ** |  |  |
| Screw                 |           |    |                 |                |                 |    |  |  |

|                      |           |    | <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |    |  |  |
|----------------------|-----------|----|-----------------|----------------|-----------------|----|--|--|
| DAS<br>27<br>9-89    |           |    | GA              | 270            |                 |    |  |  |
|                      |           |    | 125654          | 270            |                 |    |  |  |
|                      |           |    | Return2016      | 1              |                 |    |  |  |
|                      |           |    | m127813         | 1              |                 |    |  |  |
|                      |           |    | ST281           | 76             |                 |    |  |  |
|                      |           |    | m135015         | 76             |                 | 1  |  |  |
| MS27212-1-3          | Purchased | No |                 | Each           | 2.0000          | 1  |  |  |
| <b>*MS27212-1-3*</b> |           |    |                 |                |                 | ** |  |  |
| Terminal Board       |           |    |                 |                |                 |    |  |  |

|                   |  |  | <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |  |  |  |
|-------------------|--|--|-----------------|----------------|-----------------|--|--|--|
| DAS<br>27<br>9-89 |  |  | ST275           | 2              |                 |  |  |  |
|                   |  |  | m134463         | 2              |                 |  |  |  |

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Work Order ID: 148023

**\*148023\***

Parent Item: D212-803-215

**\*D212-803-215\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412

Start Date: 6/20/2016

Required Date: 7/4/2016

Start Qty: 1.00

Required Qty: 1.00

MS3126E16-99P Purchased No

Each 13.0000 2

DAS 6 28 9-89 9-89

**\*MS3126F16-99P\***

\*\*

Socket

DAS 27 9-89

Location

Loc Qty

Loc Code

ST272

13

m134630

13

2

MS3120E16-99S Purchased No

Each 2.0000 1

DAS 6 28 9-89 9-89

**\*MS3120F16-99S\***

\*\*

Socket

DAS 27 9-89

Location

Loc Qty

Loc Code

ST272

2

m134920

2

1

MS3373-A1 Purchased No

Each 0.0000 3

DAS 6 28 9-89 9-89

**\*MS3373-A1\***

\*\*

Strip

DAS 27 9-89

NAS1149D0363J Purchased No

Each 2,037.000 2

**\*NAS1149D0363.J\***

\*\*

Washer

DAS 6 28 9-89 9-89

Location

Loc Qty

Loc Code

GA

436

m134055

436

ST263

1601

m134606

8

m134676

593

m134955

1000

2

JUN 27 2016

DAS 27 9-89

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D212-803 REV. D AND INSTRUCTIONS  
FOR CONTINUED AIRWORTHINESS ICA-D212-803 REV. 3 OR LATER APPROVED REVISION  
REF. FAA STC: SR02233SE

## 1.0 PURPOSE

The purpose of the DSI is to amend the installation of the D4410-041/-043/-045 Co-Pilot Collective Head Assembly and the D5046-041/-043/-045 Co-Pilot Collective Head Assembly on the Collective Stick of the Bell 205/212/412 model aircraft for DXXX-803-0XX at CHG 003 and later and the DXXX-803-1XX at CHG 002 and later.

## 2.0 PROCEDURE

2.1 To install DXXXX-041/-043/-045 Co-Pilot Collective Head Assembly onto Collective Stick Assembly (Bell p/n 205-001-117-1 for 205, Bell p/n 212-001-117-1 for 212/412 and Bell p/n 212-001-171-001 for Eagle Single), position the Head Assembly on the Collective Stick Assembly so that it is angled away from the door and does not contact the pilot's leg. Transfer drill the mounting hole on the Collective Stick Assembly to the desired location on the neck of the DXXXX-041/-043/-045 Collective Head.

2.2 To adjust the position of the DXXXX-041/-043/-045 Collective Head Assembly, it is acceptable to remove  $\frac{1}{2}$ " to  $\frac{3}{4}$ " off of the neck as desired.

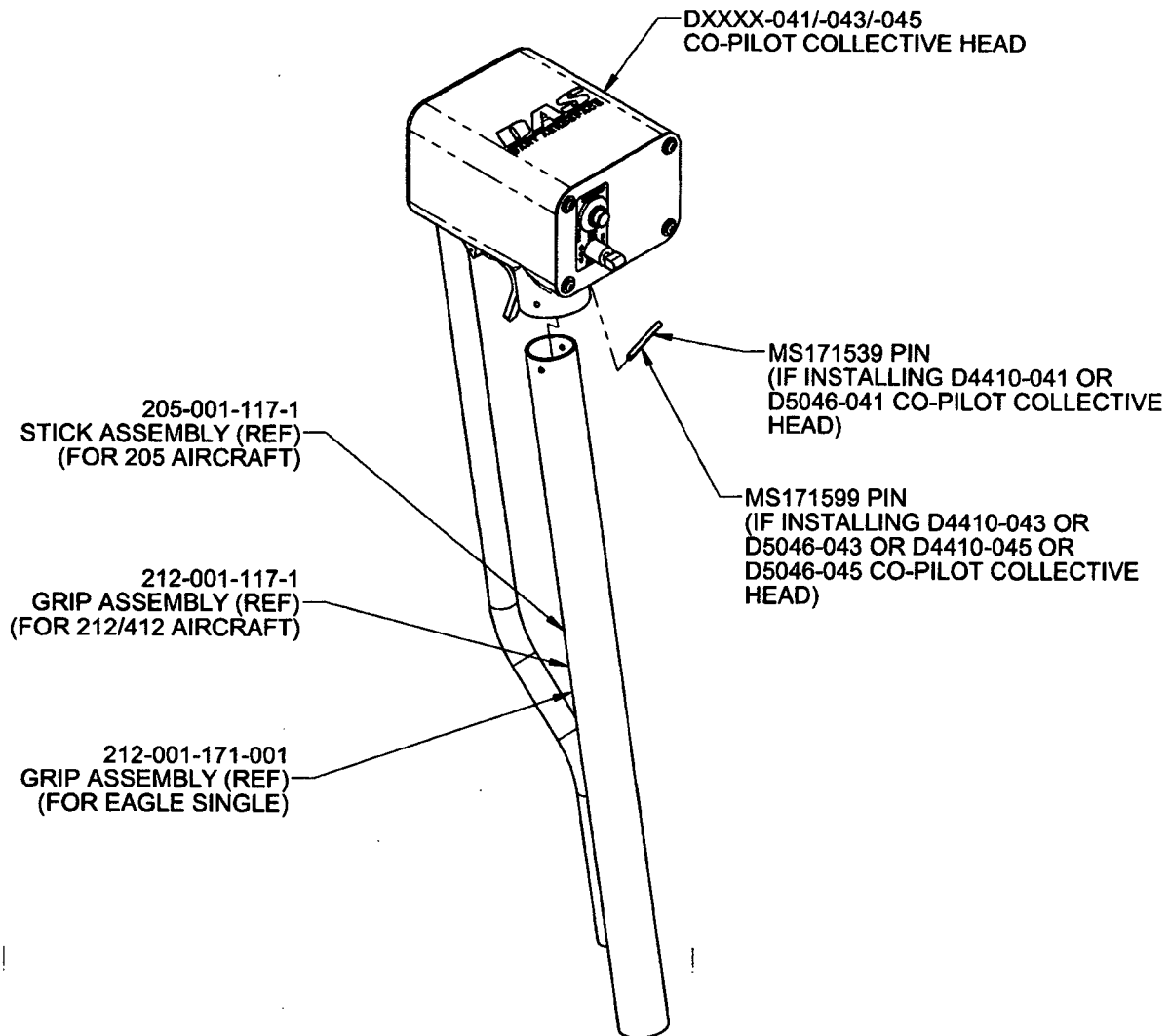
2.3 Wet the Collective Head Assembly with Proseal 890 or equivalent and mount using Pin (p/n MS171539 on DXXXX-041 Collective Head or p/n MS171599 on DXXXX-043/-045 Collective Head) per Figure 1. Apply Aircraft Primer to Pin.

## 3.0 WEIGHT AND BALANCE

Aircraft Weight and Balance are not affected by this change.

5H 148023  
June 20/16

|            |                                                                                     |                                                                                                                                                                                                                                                                                 |              |
|------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| A          | NEW ISSUE                                                                           | VS                                                                                                                                                                                                                                                                              | 15.06.24     |
| REV.       | DESCRIPTION                                                                         | BY                                                                                                                                                                                                                                                                              | DATE         |
| DESIGN     | VS                                                                                  | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                        |              |
| DRAWN      | VS                                                                                  |                                                                                                                                                                                                                                                                                 |              |
| CHECKED    | HS                                                                                  | DRAWING NO.                                                                                                                                                                                                                                                                     | REV. A       |
| MFG. APPR. | N/A                                                                                 | DSI 9728                                                                                                                                                                                                                                                                        | SHEET 1 OF 3 |
| APPROVED   | HS                                                                                  | TITLE                                                                                                                                                                                                                                                                           | SCALE        |
| DE APPR.   |  | LH PIC INSTALLATION                                                                                                                                                                                                                                                             | NTS          |
| DATE       | 15.06.24                                                                            | COPYRIGHT © 2015 BY DART AEROSPACE LTD.<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE LTD. |              |



**FIGURE 1 - Co-Pilot Collective Head Installation**  
D4410-041 SHOWN D4410-043/-045 AND D5046-041/-043/-045 SIMILAR)

|            |               |                                                                                                                                                                                                                                                                                 |              |
|------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | VS            | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                        |              |
| DRAWN      | VS            |                                                                                                                                                                                                                                                                                 |              |
| CHECKED    | HS            | DRAWING NO.                                                                                                                                                                                                                                                                     | REV. A       |
| MFG. APPR. | N/A           | DSI 9728                                                                                                                                                                                                                                                                        | SHEET 2 OF 3 |
| APPROVED   | HS            | TITLE                                                                                                                                                                                                                                                                           | SCALE        |
| DE APPR.   | <del>HS</del> | LH PIC INSTALLATION                                                                                                                                                                                                                                                             | NTS          |
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## 4.0 PARTS LISTS

Amend Parts Lists for the following kits per tables below.

### 4.1 Large Collective Head Kits

| Qty<br>-011 | Qty<br>-013 | Qty<br>-015 | Qty<br>-017 | Qty<br>-019 | Part Number  | Description                                 |
|-------------|-------------|-------------|-------------|-------------|--------------|---------------------------------------------|
| X           |             |             |             |             | D205-803-011 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             | X           |             |             |             | D205-803-013 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             | X           |             |             | D212-803-015 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             |             |             | X           |             | D212-803-017 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             |             |             | X           | D212-803-019 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1           | 1           |             |             |             | MS171539     | PIN                                         |
|             |             | 1           | 1           | 1           | MS171599     | PIN                                         |

### 4.2 Small Collective Head Kits

| Qty<br>-111 | Qty<br>-113 | Qty<br>-115 | Qty<br>-117 | Qty<br>-119 | Part Number  | Description                                 |
|-------------|-------------|-------------|-------------|-------------|--------------|---------------------------------------------|
| X           |             |             |             |             | D205-803-111 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             | X           |             |             |             | D205-803-113 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             | X           |             |             | D212-803-115 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             |             |             | X           |             | D212-803-117 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             |             |             | X           | D212-803-119 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1           | 1           |             |             |             | MS171539     | PIN                                         |
|             |             | 1           | 1           | 1           | MS171599     | PIN                                         |

### 4.3 Medium Collective Head Kits

| Qty<br>-211 | Qty<br>-213 | Qty<br>-215 | Qty<br>-217 | Qty<br>-219 | Part Number  | Description                                 |
|-------------|-------------|-------------|-------------|-------------|--------------|---------------------------------------------|
| X           |             |             |             |             | D205-802-211 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             | X           |             |             |             | D205-803-213 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             | X           |             |             | D212-803-215 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             |             |             | X           |             | D212-803-217 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             |             |             | X           | D212-803-219 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1           | 1           |             |             |             | MS171539     | PIN                                         |
|             |             | 1           | 1           | 1           | MS171599     | PIN                                         |

|            |                                                                                     |                                                                                                                                                                                                                                                                                                      |              |
|------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | VS                                                                                  | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                             |              |
| DRAWN      | VS                                                                                  |                                                                                                                                                                                                                                                                                                      |              |
| CHECKED    | HS                                                                                  | DRAWING NO.                                                                                                                                                                                                                                                                                          | REV. A       |
| MFG. APPR. | N/A                                                                                 | DSI 9728                                                                                                                                                                                                                                                                                             | SHEET 3 OF 3 |
| APPROVED   | HS                                                                                  | TITLE                                                                                                                                                                                                                                                                                                | SCALE        |
| DE APPR.   |  | LH PIC INSTALLATION                                                                                                                                                                                                                                                                                  | NTS          |
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## 7. PARTS LIST - MEDIUM COLLECTIVE HEAD KITS

| Qty<br>-211 | Qty<br>-213 | Qty<br>-215 | Qty<br>-217 | Qty<br>-219 | Qty<br>-221 | Qty<br>-223 | Part Number   | Description                                                                                      |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|--------------------------------------------------------------------------------------------------|
| X           |             |             |             |             |             |             | D205-803-211  | LEFT HAND PILOT IN COMMAND, COMPLETE KIT                                                         |
|             | X           |             |             |             |             |             | D205-803-213  | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY                                                      |
|             |             | X           |             |             |             |             | D212-803-215  | LEFT HAND PILOT IN COMMAND, COMPLETE KIT                                                         |
|             |             |             | X           |             |             |             | D212-803-217  | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY                                                      |
|             |             |             |             | X           |             |             | D212-803-219  | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE                                                         |
|             |             |             |             |             | X           |             | D205-803-221  | LEFT HAND PILOT IN COMMAND, COMPLETE KIT                                                         |
|             |             |             |             |             |             | X           | D205-803-223  | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY                                                      |
| 1           | 1           |             |             |             |             |             | D5155-041     | CO-PILOT COLLECTIVE HEAD ASSEMBLY (205)                                                          |
|             |             | 1           | 1           |             |             |             | D5155-043     | CO-PILOT COLLECTIVE HEAD ASSEMBLY (212)                                                          |
|             |             |             |             | 1           |             |             | D5155-045     | CO-PILOT COLLECTIVE HEAD ASSEMBLY (EAGLE SINGLE)                                                 |
|             |             |             |             |             | 1           | 1           | D5155-047     | CO-PILOT COLLECTIVE HEAD ASSEMBLY (205 WITH THE 204-001-290-5 STICK AND THROTTLE ASSY INSTALLED) |
| 1           | 1           |             |             | 1           | 1           | 1           | D5156-1       | FACE PLATE                                                                                       |
| 1           | 1           |             |             | 1           | 1           | 1           | D5156-3       | FACE PLATE                                                                                       |
|             |             | 1           | 1           |             |             |             | D5156-5       | FACE PLATE                                                                                       |
|             |             | 1           | 1           |             |             |             | D5156-7       | FACE PLATE                                                                                       |
| 1           | 1           |             |             | 1           | 1           | 1           | D4410-9       | TRIGGER                                                                                          |
| 1           | 1           |             |             | 1           | 1           | 1           | D5055-1       | PLACARD                                                                                          |
| 1           | 1           | 1           | 1           | 1           | 1           | 1           | D5055-3       | PLACARD                                                                                          |
|             |             | 1           | 1           |             |             |             | D5055-5       | PLACARD                                                                                          |
|             |             | 1           | 1           |             |             |             | D5055-7       | PLACARD                                                                                          |
|             |             | 1           | 1           |             |             |             | D5055-9       | PLACARD                                                                                          |
| 1           | 1           | 1           | 1           | 1           |             |             | D4411-7       | PLACARD                                                                                          |
|             |             | 1           |             |             |             |             | 27ET51-T      | SWITCH (ALT P/N 212-075-153-3)                                                                   |
| 1           |             |             |             |             | 1           |             | 2PB744-T2     | SWITCH                                                                                           |
|             |             | 3           |             |             |             |             | 30-037-26     | DIODE ASSEMBLY                                                                                   |
|             |             | 2           |             |             |             |             | 30-037-3      | DIODE ASSEMBLY                                                                                   |
| 1           | 1           |             |             | 1           | 1           | 1           | AN565F8H9     | SETSCREW                                                                                         |
|             |             | 3           |             |             |             |             | AN961-6T      | WASHER                                                                                           |
|             |             | 1           |             |             |             |             | 51MXY-5-J     | SWITCH                                                                                           |
| 1           |             |             |             |             | 1           |             | C100E2-39     | SWITCH                                                                                           |
| 17          |             | AR (21)     |             |             | 17          |             | M39029/31-240 | PIN                                                                                              |
| 17          |             | AR (21)     |             |             | 17          |             | M39029/32-259 | SOCKET                                                                                           |
|             |             | AR (2)      |             |             |             |             | M39029/31-228 | PIN                                                                                              |
|             |             | AR (2)      |             |             |             |             | M39029/32-247 | SOCKET                                                                                           |
| 1           | 1           |             |             | 1           | 1           | 1           | MS20253-1-065 | PIN                                                                                              |
|             |             | 3           |             |             |             |             | MS21042L06    | NUT                                                                                              |
| 1           | 1           |             |             | 1           | 1           | 1           | MS21042L08    | NUT                                                                                              |
| 1           | 1           | 1           | 1           | 1           | 1           | 1           | MS21042L3     | NUT                                                                                              |
|             |             | 2           |             |             |             |             | MS21044N04    | NUT                                                                                              |
| 1           | 1           | 1           | 1           | 1           |             |             | MS21919WDG10  | CLAMP                                                                                            |
|             |             | 1           | 1           | 1           |             |             | MS21919WDG19  | CLAMP                                                                                            |
| 1           | 1           |             |             |             |             |             | MS21919WDG20  | CLAMP                                                                                            |
|             |             | 1           |             |             |             |             | MS24523-27    | SWITCH                                                                                           |
|             |             | 2           |             |             |             |             | MS24693-S7    | SCREW                                                                                            |
| 4           | 4           | 4           | 4           | 4           | 4           | 4           | MS24693-24B   | SCREW                                                                                            |
| 1           | 1           | 1           | 1           | 1           | 1           | 1           | MS27039-1-07  | SCREW                                                                                            |
|             |             | 1           |             |             |             |             | MS27212-1-3   | TERMINAL BOARD                                                                                   |
| 1           |             |             |             |             | 1           |             | MS3126E14-19P | PLUG                                                                                             |
| 1           |             |             |             |             | 1           |             | MS3120E14-19S | SOCKET                                                                                           |
|             |             | 2           |             |             |             |             | MS3126E16-99P | PLUG                                                                                             |
|             |             | 1           |             |             |             |             | MS3120E16-99S | SOCKET                                                                                           |
|             |             | 3           |             |             |             |             | MS3373-A1     | STRIP                                                                                            |
| 2           | 2           | 2           | 2           |             |             |             | NAS1149D0363J | WASHER                                                                                           |
|             |             |             |             |             | 2           | 2           | MS24865-289   | COTTER PIN                                                                                       |
| 1           | 1           | 1           | 1           | 1           | 1           | 1           | D212-803      | KIT PAPERWORK                                                                                    |



# REFERENCE ONLY

## 4.0 PARTS LISTS

Amend Parts Lists for the following kits per tables below.

### 4.1 Large Collective Head Kits

| Qty -011 | Qty -013 | Qty -015 | Qty -017 | Qty -019 | Part Number  | Description                                 |
|----------|----------|----------|----------|----------|--------------|---------------------------------------------|
| X        |          |          |          |          | D205-803-011 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|          | X        |          |          |          | D205-803-013 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|          |          | X        |          |          | D212-803-015 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|          |          |          | X        |          | D212-803-017 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|          |          |          |          | X        | D212-803-019 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1        | 1        |          |          |          | MS171539     | PIN                                         |
|          |          | 1        | 1        | 1        | MS171599     | PIN                                         |

### 4.2 Small Collective Head Kits

| Qty -111 | Qty -113 | Qty -115 | Qty -117 | Qty -119 | Part Number  | Description                                 |
|----------|----------|----------|----------|----------|--------------|---------------------------------------------|
| X        |          |          |          |          | D205-803-111 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|          | X        |          |          |          | D205-803-113 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|          |          | X        |          |          | D212-803-115 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|          |          |          | X        |          | D212-803-117 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|          |          |          |          | X        | D212-803-119 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1        | 1        |          |          |          | MS171539     | PIN                                         |
|          |          | 1        | 1        | 1        | MS171599     | PIN                                         |

### 4.3 Medium Collective Head Kits

| Qty -211 | Qty -213 | Qty -215 | Qty -217 | Qty -219 | Part Number  | Description                                 |
|----------|----------|----------|----------|----------|--------------|---------------------------------------------|
| X        |          |          |          |          | D205-802-211 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|          | X        |          |          |          | D205-803-213 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|          |          | X        |          |          | D212-803-215 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|          |          |          | X        |          | D212-803-217 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|          |          |          |          | X        | D212-803-219 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1        | 1        |          |          |          | MS171539     | PIN                                         |
|          |          | 1        | 1        | 1        | MS171599     | PIN                                         |

|            |          |                                                                                                                                                                                                                                                                                           |              |
|------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | VS       | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                  |              |
| DRAWN      | VS       |                                                                                                                                                                                                                                                                                           |              |
| CHECKED    | HS       | DRAWING NO.                                                                                                                                                                                                                                                                               | REV. A       |
| MFG. APPR. | N/A      | DSI 9728                                                                                                                                                                                                                                                                                  | SHEET 3 OF 3 |
| APPROVED   | HS       | TITLE                                                                                                                                                                                                                                                                                     | SCALE        |
| DE APPR.   |          | LH PIC INSTALLATION                                                                                                                                                                                                                                                                       | NTS          |
| DATE       | 15.06.24 | <small>COPYRIGHT © 2015 BY DART AEROSPACE LTD.<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> |              |

# Work Order ID 148023

\*148023\*

Page 1

June 20, 2016 10:20:42 AM

Item ID: D212-803-215 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Left Hand Pilot in Command - Medium/Standard Design, Complete 212/412

Start Date: 6/20/2016 Start Qty: 1.00 \*1\* Cust Item ID:  
 Required Date: 7/4/2016 Req'd Qty: 1.00 \*1\* Customer:

Reference:

Approvals: Process Plan: SA Date: 6/20/16 Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description                                        | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-----------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr                       | Revision Nbr                                                    |                      |         |        |              |               |               |                  |                |
| DSI9728                        | A                                                               |                      |         |        |              |               |               |                  |                |
| IIN-D212-803                   | D                                                               |                      |         |        |              |               |               |                  |                |
| 100                            | Document Control                                                | 0.00                 |         |        |              |               |               |                  |                |
| *100*                          | DOCUMENT CONTROL                                                |                      |         |        |              |               |               |                  |                |
| DC                             | Memo                                                            | 0.00                 |         |        |              |               |               |                  |                |
| Doc.Control -USB or Paperwork  | Photocopy blue file and type labels per PPP D212-803-215 CHG001 |                      |         |        |              |               |               |                  |                |
| 110                            | Pick Kit                                                        | 0.00                 |         |        |              |               |               |                  |                |
| *110*                          |                                                                 |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo                                                            | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      |                                                                 |                      |         |        |              |               |               |                  |                |

JUN 23 2016

MCS JUN 23 2016